Municipal Drinking Water Licensing Program Bulletin

Ministry of the Environment

Safe Drinking Water Branch

A bulletin for municipal drinking water system owners and operators

Issue #3 December 2012

All municipal drinking water systems in the Province of Ontario have now established a quality management system, achieved accreditation of their operating authority and have been issued a Municipal Drinking Water Licence and Drinking Water Works Permit. More recently, all operating authorities have selected and transferred their accreditation to one of the new accreditation bodies.

We would not have seen such progress without the dedication of the owners and operators of Ontario's drinking water systems. It is thanks to your hard work and continued efforts that we were able to reach this significant milestone in the program.

The Drinking Water Quality Management Standard (DWQMS) is a tool for owners and operators to help ensure that consistent processes and procedures are in place to manage the production and delivery of high quality drinking water. These processes and procedures also provide municipal officials with the tools necessary to continuously assess their systems, and help assist them in meeting the Standard of Care provisions. It is an investment in the future and an important part of the licensing process.

The Standard of Care provisions (s.19 of the Safe Drinking Water Act) come into effect on December 31, 2012, along with the requirement to have an agreement with your accredited Operating Authority (s.14 of the Safe Drinking Water Act).

Now that all Municipal Drinking Water Licences have been issued, the Ministry of the Environment (MOE) is taking the opportunity to review the Municipal Drinking Water Licensing Program, the Accreditation Program for Operating Authorities, and the DWQMS. A survey was distributed to all municipal stakeholders in Fall, 2011 and the Ministry has already initiated action on many of the recommendations that were identified. While the initial survey is now closed, the MOE is still collecting suggestions for improving the DWQMS.

If you have not already provided feedback on the DWQMS, you are encouraged to provide it anonymously at: www.surveymonkey.com/s/21elements. Alternatively, you can provide feedback directly to the MOE on any aspect of the Licensing or Accreditation Programs by sending an email to mdwlp@ontario.ca. Your feedback will help shape the future delivery of both the Municipal Drinking Water Licensing Program and the Accreditation Program for Operating Authorities.

This bulletin contains program updates for municipal drinking water system owners and operators. If there is a topic you would like to see covered in a future edition, or if you have questions about any of the topics covered in this issue, please contact the Approvals & Licensing Section of the Safe Drinking Water Branch (Ministry of the Environment) at mdwlp@ontario.ca.

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Ontario

New Accreditation Bodies

The Safe Drinking Water Act, 2002 requires an accredited operating authority to be in charge of a municipal residential drinking water system at all times. In order to become accredited, an operating authority must establish and maintain a quality management system that meets the requirements of Ontario's Drinking Water Quality Management Standard.

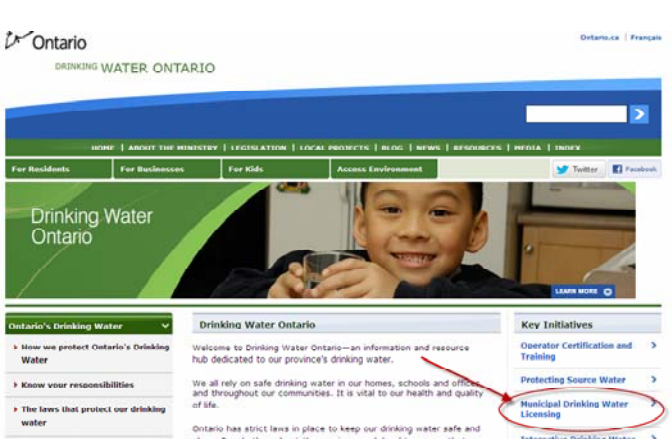
Accreditation is granted following verification by a third-party accreditation body that an operating authority has a quality management system in place that meets the requirements of the Standard.

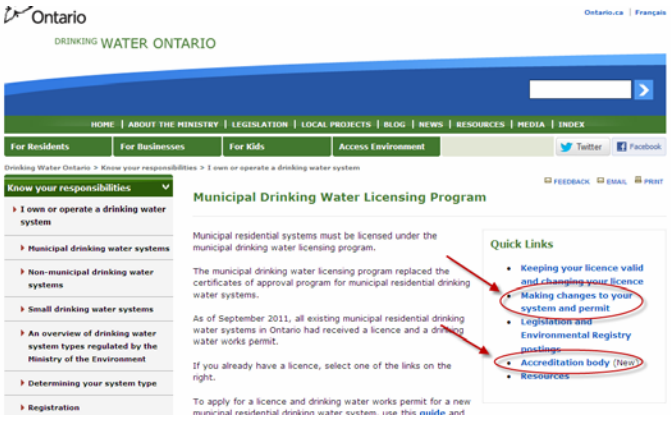
In May 2012, two new accreditation bodies were designated under the Safe Drinking Water Act, 2002 for the purpose of providing accreditation audit services to operating authorities: NSF International Strategic Registrations and SAI Global. Information about these accreditation bodies can be accessed through the Ministry of the Environment website at www.ontario.ca/drinkingwater.

Navigating the Ministry Website

These helpful tips will help you find information about the Municipal Drinking Water Licensing Program on the Ministry of the Environment website:

1) Navigate to www.ontario.ca/drinkingwater
2) Under the heading "Key Initiatives", Select "Municipal Drinking Water Licensing"
3) In this section of the website, you can access a variety of information about the Program. The most commonly accessed material can be found under the heading "Quick Links", by selecting either "Making changes to your system and permit" or "Accreditation body"
4) The "Making changes to your system and permit" page contains a number of forms you may need to access regularly, including Form 1, Form 2, Form 3 and the Director Notification Form.
5) The "Accreditation body" page lists all of the accreditation bodies that have been designated under the Safe Drinking Water Act, 2002, and includes a variety of guidance materials (such as the Municipal Drinking Water Licensing Program Bulletin).





Standard of Care

On December 31, 2012, Standard of Care provisions under Section 19 of the Safe Drinking Water Act (SDWA), 2002, will come into force. Section 19 expressly extends legal responsibility to people with decision-making authority over municipal drinking water systems, potentially including but not limited to members of municipal councils.

If the Statutory Standard of Care provisions apply to you, it is important to understand that not meeting the legal requirements may come with significant consequences. While Section 19 of the SDWA does not require every person with decision-making authority to be an expert, it does require that they exercise the level of care, diligence and skill with regard to a municipal drinking water system that a reasonably prudent person would be expected to exercise in a similar situation and that they exercise this due diligence honestly, competently and with integrity.

A training course is available through the Walkerton Clean Water Centre (WCWC) that can assist mayors, councillors and municipal officials with oversight responsibility for drinking water systems to better understand the SDWA Standard of Care requirements. This course was developed in partnership with the Ministry of the Environment and an advisory group of municipal councillors and mayors.

The course provides non-technical municipal officials with a basic understanding of drinking water systems and some of the risks that these systems typically face. Additionally, the course reviews the concept of Standard of Care, the need to be informed, ask questions and to remain vigilant about one's drinking water oversight responsibilities.

The course was launched last winter and so far over 600 municipal officials have participated in the course.

Here's what people have to say about the Standard of Care Training Course:

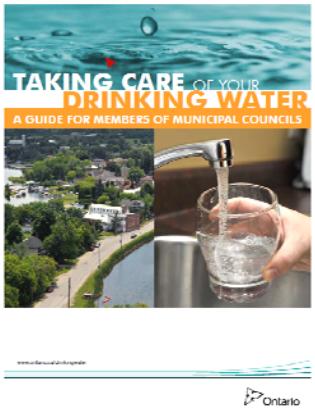
"I have no suggestions for improving the course. Well attuned to my needs as a new councillor. Covered a lot of ground in a short time."

"A superb presentation clearly describing why so much emphasis is placed on municipal water issues."

"Very informative and highly recommended to all elected officials."

"Being a first time councillor, this has given me the direction needed to make decisions and ask questions."

"In my 27 years working in the water industry, this is probably the most important initiative I have been involved in," says Brian Jobb, Manager of the Walkerton Clean Water Centre's Training Institute and one of the trainers for the course. "We have received very positive feedback from the municipal councillors and officials who have taken the course to date, and look forward to providing more sessions in the coming year."



Upcoming sessions of the Standard of Care course can be viewed on the WCWC website at www.wcwc.ca. Special arrangements can also be explored with the Centre to bring the training course directly to your community if there are enough interested participants.

As a companion to the training course, the Ministry of the Environment has produced a guide for municipal councillors entitled *Taking Care of Your Drinking Water: A Guide for Members of Municipal Council*, which is available on the Drinking Water Ontario website at www.ontario.ca/drinkingwater, under "Resources".

Agreement with Accredited Operating Authority

As the owner of a municipal drinking water system, you may contract an operating authority to be responsible for the operation, management, maintenance and alteration of your system. While you may delegate certain duties to your operating authority, you will still need to apply the statutory Standard of Care to your oversight activities. As the owner of the drinking water system, it will be your responsibility to ensure that the operating authority is carrying out its responsibilities under the SDWA.

Section 14 of the SDWA will come into force on December 31, 2012; the same date as Standard of Care. If you already have an agreement in place with your operating authority, you should ensure that it contains the information required under Section 14 (1) of the SDWA, including:

- A description of the system or the parts of the system for which the operating authority is responsible;
- A description of the responsibilities of the owner in an emergency situation;
- A description of the responsibilities of the owner and the operating authority to ensure compliance with the SDWA and to respond to any deficiency that is determined to exist in the drinking water system or the operational plan for the drinking water system;
- A description of the responsibilities of the owner and the operating authority to ensure that the operational plans for the system are reviewed and revised and that both parties are informed of all revisions.

Section 14 (4) of the SDWA also requires the contents of the agreement to be made public. There are no requirements that prescribe how you should do this, and you have the flexibility to make the agreement available by the method that is most appropriate for your system (e.g., electronically on a publicly accessible website or in hard copy at a publicly accessible location). While you are encouraged to make the entire contents of the agreement available, at a minimum the information outlined in Section 14(1) is required to be made public.

Financial Plans

Working towards financial sustainability in Ontario's municipal water sector is a long-term goal. Drinking water systems are aging, there is a growing amount of deferred maintenance, and many assets are nearing, or even beyond, the end of their useful lives and are in need of replacement.

Forward planning is needed to ensure that Ontarians continue to enjoy clean and safe drinking water and that environmental protection is maintained. Creating a Financial Plan can assist a municipality in building capacity to plan for the long term financial sustainability of their drinking water system.

As a component of the Municipal Drinking Water Licensing Program, a Financial Plan was required to be prepared and approved by a resolution of Council within six months of receiving the first Municipal Drinking Water Licence (Licence) and Drinking Water Works Permit (DWWP).

Once a drinking water system is licensed, Financial Plans are required to be updated in conjunction with every application for licence renewal. Subsection 1(2) of O. Reg. 453/07 requires the owner of a municipal drinking water system to update and submit the updated Financial Plans to the province before making an application to renew the drinking water licence (i.e. every five years). The regulation does not, however, preclude municipalities from updating Financial Plans more regularly.

In terms of monitoring and enforcement - the Ministry of the Environment will confirm that an updated copy of the Financial Plan has been submitted to the Ministry of Municipal Affairs and Housing in conjunction with the next renewal of your Licence. Additional information about Financial Plans is available in the guidance document titled *Toward Financially Sustainable Drinking Water Systems*, on the Drinking Water Ontario website at www.ontario.ca/drinkingwater.

Risk Assessment: Identifying Critical Control Points

When an Operational Plan was prepared for your drinking water system, a risk assessment was undertaken to identify hazards and the control measures in place to address those hazards. The DWQMS requires you to review the assumptions used in this risk assessment at least once a year, and to conduct a full risk assessment at least once every thirty-six months.

Every drinking water system will have its own unique set of challenges. Your system has been designed to address these specific challenges and produce drinking water that meets Ontario Drinking Water Quality Standards (O. Reg. 169/03). The purpose of your risk assessment is not to re-evaluate existing treatment processes, but to judge the reliability and effectiveness of the procedures you have in place to manage these treatment processes.

By identifying hazards and associated control measures through your risk assessment, you are also zeroing in on the most critical process steps to make sure control limits are set and that monitoring and response procedures are in place. Performing a risk assessment typically leads to a greater understanding of your drinking water system and its vulnerabilities, better management systems and improved controls.

As part of your risk assessment, you are expected to identify essential steps or points in your drinking water system where some sort of control is applied to prevent, reduce or eliminate a drinking water health hazard. These steps or points are generally referred to as Critical Control Points (CCP).

The characteristics of an ideal critical control point include:

- A control can be applied at the point to reduce or eliminate a hazard;
- The point is monitored, preferably in real time;
- There are determined control limits;
- The control process is essential to ensure the safety of drinking water.

If your risk assessment is completed consistently with the requirements of the DWQMS, at least one CCP will be identified. For example, pathogen removal and disinfection are critical processes in a water treatment plant, and there is a minimum chlorine residual that must be maintained in a distribution system.

While there are no mandatory CCP, the recommended minimum that should be included in your risk assessment are those control points required to meet minimum treatment requirements for primary disinfection and secondary disinfection as outlined in O. Reg. 170/03 and the Procedure for Disinfection of Drinking Water in Ontario.

Additional information about the recommended minimum CCP is available on page 83 of the MOE publication "*Implementing Quality Management: A Guide for Ontario's Drinking Water Systems*".

Common Questions about the DWQMS

The DWQMS is a 'Made-in-Ontario' management system standard, developed specifically by the drinking water sector for municipal residential drinking water systems. It has been written to accommodate all types of municipal drinking water systems – from large systems with several water treatment plants to small distribution systems that receive treated water from another jurisdiction.

Sometimes it may not be immediately clear how a specific element of the DWQMS relates to your drinking water system. If you have a question that you would like to see answered in a future issue of the bulletin, please email mdwlp@ontario.ca.

Element 16b of the DWQMS refers to sampling, testing or monitoring activities that take place upstream of the drinking water system. What does 'upstream' mean for a distribution-only system?

The term 'upstream' generally refers to the water before it enters your drinking water system. In the case of a distribution-only system that receives treated water from another drinking water system, the other drinking water system would be 'upstream'. In such a case, you are not expected to provide a comprehensive list of the sampling, testing or monitoring activities performed by the system.

In your operational plan, you should acknowledge that activities are performed by the other drinking water system to ensure that the water supplied to your system meets the Ontario Drinking Water Quality Standards.

If an actual emergency situation takes place, can it be considered as part of emergency response training and testing under DWQMS Element 18c?

Your operational plan should document the procedure that is used to ensure a state of emergency preparedness in your drinking water system. Training and testing are two aspects of this emergency preparedness. Training is an ongoing effort to ensure that staff are aware of your emergency procedures, and testing is done to ensure that the procedures and equipment are adequate to respond to an emergency situation.

While an actual emergency situation may satisfy aspects of the procedures you have in place for training and testing, an emergency situation on its own cannot satisfy the requirement to test your emergency procedures.

Element 3 of the DWQMS requires written endorsement of the Operational Plan by the Owner and Top Management. How soon after a change in Municipal Council or Top Management do I need to get the Operational Plan re-endorsed?

Top management commitment is a crucial part of a successful QMS implementation. Without the authority, direction and support of top management, it would be very difficult to plan or implement a QMS. While there is no specific timeframe in which the Operational Plan must be re-endorsed, it is important that this is completed as soon as possible.

It is expected that your Operational Plan will be up to date before you are audited. Outdated information is likely to result in a non-conformance. The auditor will also investigate top management's awareness of the QMS and how it is integrated with other operations.

Common Questions about the Licence & DWWP

Under the Municipal Drinking Water Licensing Program, the authority to operate your drinking water system is provided through your Licence. The authority to establish and alter your system is provided through your DWWP. The conditions found in your Licence will generally relate to operational matters, while conditions in your DWWP relate to the physical works.

There are some key differences between the Licence/DWWP and the previous Certificates of Approval that may have been issued for your drinking water system. If you have a question that you would like to see answered in a future issue of the bulletin, or have a specific question about a condition in your Licence/DWWP please email mdwlp@ontario.ca.

The DWWP allows me to make certain pre-authorized alterations to my system, including the addition of watermains. A developer will be constructing a private watermain to service a new subdivision. This private watermain will ultimately be connected to my drinking water system. As this will be a privately owned watermain, will its construction be pre-authorized under my DWWP?

There are a few factors that need to be considered. If the watermain will constitute part of your drinking water system (i.e., there is an ownership agreement in place or ownership will be transferred to the municipality), it is pre-authorized under your DWWP, provided it meets the other criteria for pre-authorization in Condition 3 of the DWWP.

If the municipality will not ultimately have ownership of the watermain, the pre-authorized conditions in your DWWP will not apply. The owner of the watermain would be responsible for obtaining any necessary approval. Depending on the specific details relating to this watermain, it may be considered plumbing under the Plumbing Code or a non-municipal residential drinking water system by virtue of the private ownership.

Now that my municipality has received a Licence and DWWP, are the Certificates of Approval for Air Emissions still valid for the drinking water system?

All Certificates of Approval that were previously issued in respect to your drinking water system expired on the day that the municipality was issued its first licence and permit. Approval for these Air Emissions are now considered as part of the Licence and DWWP. It's important to note that your municipality may have other Certificates of Approval that are still in place, if they are not related to the drinking water system (such as for Air, Noise or Wastewater, that are now deemed to be Environmental Compliance Approvals).

I understand that a form needs to be completed if a pre-authorized alteration is made to the drinking water system. What do I do with this form, and how do I notify the MOE of the change(s) that have been made?

Depending on the type of pre-authorized alteration that takes place, Form 1, Form 2 or Form 3 will need to be completed. The form is required to be completed in advance of any work taking place, and is used to create a record of the alteration. You are not required to submit this form to the MOE, but you must retain the completed form for a period of 10 years and have it available for review by an MOE inspector.

You are also required to notify the Director within 30 days of the placing into service of any addition, modification, replacement or extension of the drinking water system which would require an alteration to the description of a drinking water system component described in Schedule A of the DWWP.

The Accreditation Cycle

Obtaining third-party accreditation demonstrates your commitment to quality management. It is a major achievement and provides confirmation that your drinking water system is being managed according to the requirements of the DWQMS.

This accreditation is not a one-time exercise; it is an ongoing process of assessment and evaluation. Your initial accreditation was based on your documented QMS; however, as you move forward, your continued accreditation will be based on your implementation of the QMS and your ability to maintain and improve it.

The chart below describes the general accreditation milestones, and outlines what you can expect at each of these milestones.

If you have any questions about the status of your accreditation, or would like to know when you are due to reach the next accreditation milestone, please contact the account representative of your current accreditation provider or contact them directly at:

SAI Global
Email: dwqms@saiglobal.com
Phone: 1-416-401-8672

NSF International Strategic Registrations
Email: canada@nsf.org
Phone: 1-866-261-0086; Direct 1-519-821-3334